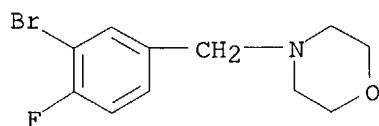


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5 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 281652-25-3 REGISTRY  
CN Morpholine, 4-[(3-bromo-4-fluorophenyl)methyl]- (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN 4-(3-Bromo-4-fluorobenzyl)morpholine  
FS 3D CONCORD  
MF C11 H13 Br F N O  
SR CA  
LC STN Files: CA, CAPLUS, CHEMCATS, USPAT2, USPATFULL



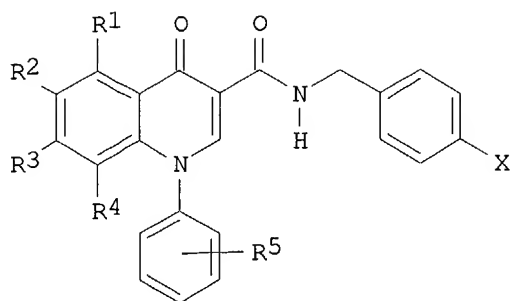
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4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

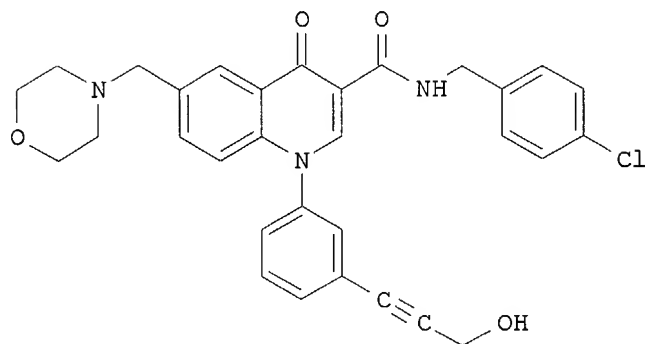
L7 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:935580 CAPLUS  
 DOCUMENT NUMBER: 136:53690  
 TITLE: Preparation and antiviral activity of  
 1-aryl-4-oxo-1,4-dihydro-3-quinolinecarboxamides  
 INVENTOR(S): Schnute, Mark E.  
 PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA  
 SOURCE: PCT Int. Appl., 86 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001098275	A2	20011227	WO 2001-US16481	20010605
WO 2001098275	A3	20020704		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
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US 2002103220	A1	20020801	US 2001-875432	20010605
US 6653307	B2	20031125		
EP 1292575	A2	20030319	EP 2001-945974	20010605
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2001011729	A	20030729	BR 2001-11729	20010605
PRIORITY APPLN. INFO.:			US 2000-212202P	P 20000616
			US 2001-272136P	P 20010228
			WO 2001-US16481	W 20010605
OTHER SOURCE(S):	MARPAT 136:53690			
GRAPHIC IMAGE:				

*Same Patent*



I



II

# ABSTRACT:

The title compds. of formula I [R1 = H, halo, or C1-C4 alkyl optionally substituted by one to three halo; R2 = H, halo, aryl, etc.; R3 = H, halo, OH, alkoxy, aryl oxy, etc.; R4 = H, halo, OH, alkoxy, aryloxy, etc.; R5 = H, halo, OH, alkoxy, aryloxy, etc.; X = Cl, F, Br, CN, or NO2] or their pharmaceutically acceptable salts, useful as antiviral agents, in particular, as agent against viruses of the herpes family were prepd.. Thus, reacting N-(4-chlorobenzyl)-1-(3-iodophenyl)-6-(4-morpholinylmethyl)-4-oxo-1,4-dihydro-3-quinolinecarboxamide with propargyl alc. in the presence of Pd(PPh3)2Cl2 and CuI afforded II in 19% which showed IC50 of 0.57 .mu.M against human cytomegalovirus (HCMV) polymerase.

L7 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:798202 CAPLUS

DOCUMENT NUMBER: 135:331435

TITLE: Preparation of 4-hydroxycinnoline-3-carboxamides as antiviral agents

INVENTOR(S): Vaillancourt, Valerie A.; Larsen, Scott D.; Nair, Sajiv K.

PATENT ASSIGNEE(S): Pharmacia + Upjohn Company, USA

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

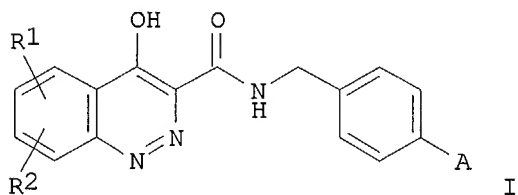
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081318	A1	20011101	WO 2001-US5807	20010315
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,				

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 RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,  
 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
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 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 2002042397 A1 20020411 US 2001-808902 20010315  
 US 6458788 B2 20021001  
 EP 1265872 A1 20021218 EP 2001-916182 20010315  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2003531195 T2 20031021 JP 2001-578412 20010315  
 PRIORITY APPLN. INFO.: US 2000-190976P P 20000321  
 WO 2001-US5807 W 20010315  
 OTHER SOURCE(S): MARPAT 135:331435  
 GRAPHIC IMAGE:



# ABSTRACT:

The title compds. [I; A = Cl, Be, CN, NO<sub>2</sub>, F; R<sub>1</sub> = aryl, CN, heteroaryl, etc.; R<sub>2</sub> = H, halo, aryl, etc.], useful for treatment or prevention of herpes viruses, were prepd. E.g., a multi-step synthesis of I [A = Cl; R<sub>1</sub> = 6-CH<sub>2</sub>OH; R<sub>2</sub> = H] which showed 51% inhibition of the HCMV polymerase at 20 .mu.M, was given.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:713324 CAPLUS

DOCUMENT NUMBER: 135:257250

TITLE: Preparation of 4-oxo-1,4-dihydro-3-cinnolinecarboxamides as antiviral agents

INVENTOR(S): Vaillancourt, Valerie A.; Larsen, Scott D.; Nair, Sajiv K.

PATENT ASSIGNEE(S): Pharmacia + Upjohn Company, USA

SOURCE: PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070706	A2	20010927	WO 2001-US5811	20010315
WO 2001070706	A3	20020510		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,			

LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,  
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 VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002045619 A1 20020418 US 2001-808836 20010315  
 US 6624160 B2 20030923  
 EP 1265873 A2 20021218 EP 2001-920138 20010315  
 EP 1265873 B1 20031015

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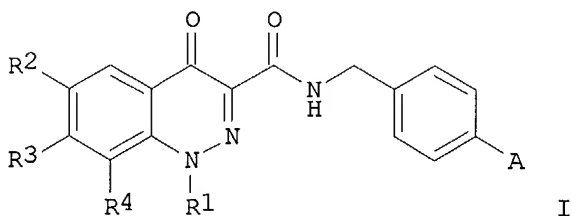
BR 2001009487 A 20030610 BR 2001-9487 20010315  
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 NO 2002004502 A 20021120 NO 2002-4502 20020920

PRIORITY APPLN. INFO.:

US 2000-191291P P 20000321  
 WO 2001-US5811 W 20010315

OTHER SOURCE(S): MARPAT 135:257250

GRAPHIC IMAGE:



# ABSTRACT:

The title compds. I [wherein A = Cl, Br, CN, NO<sub>2</sub>, or F; R<sub>1</sub> = R<sub>5</sub> or SO<sub>2</sub>R<sub>9</sub>; R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> = independently H, halo, aryl, SOmR<sub>6</sub>, COR<sub>6</sub>, CO<sub>2</sub>R<sub>9</sub>, CN, heterocyclyl(oxy), OR<sub>10</sub>, NR<sub>7</sub>R<sub>8</sub>, SR<sub>10</sub>, heterocyclylthio, NHCOR<sub>12</sub>, NHSO<sub>2</sub>R<sub>12</sub>, or (un)substituted alkyl; or R<sub>3</sub> together with R<sub>2</sub> or R<sub>4</sub> form an (un)substituted (hetero)cyclic ring; R<sub>5</sub> = (CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>R<sub>10</sub> or (un)substituted (cyclo)alkyl; R<sub>6</sub> = alkyl, NR<sub>7</sub>R<sub>8</sub>, aryl, or heterocyclyl; R<sub>7</sub> and R<sub>8</sub> = H, aryl, or (un)substituted (cyclo)alkyl; or R<sub>7</sub> and R<sub>8</sub> together with the N to which they are attached form a heterocyclic ring; R<sub>9</sub> = aryl, heterocyclyl, cycloalkyl, Me, or (un)substituted alkyl; R<sub>10</sub> = H, Me, or (hydroxy)alkyl; R<sub>12</sub> = H, heterocyclyl, aryl, cycloalkyl, Me, or (amino)alkyl; m = 0-2; n = 2-4; or a pharmaceutically acceptable salt thereof] were prepd. as antiviral agents, which are particularly effective against varicella zoster virus (VZV), the Epstein-Barr virus, the herpes simplex virus (HSV), the human herpes virus type 8 (HHV-8), and cytomegalovirus (CMV). For example, tosyl azide was added to Et 3-(2-fluoro-5-iodophenyl)-3-oxopropanoate and the diazo compd. cyclized with PBu<sub>3</sub> to give Et 4-hydroxy-6-iodo-3-cinnolinecarboxylate. Amidation with 4-chlorobenzylamine (85%), N-methylation (39%), and alkylation with propargyl alc. in the presence of Pd(PPh<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> yielded the 4-oxo-1,4-dihydro-3-cinnolinecarboxamide I (A = Cl, R<sub>1</sub> = Me, R<sub>2</sub> = C.tplbond.CCH<sub>2</sub>OH, R<sub>3</sub> and R<sub>4</sub> = H) (II). The latter inhibited human CMV, HSV, and VZV polymerases with IC<sub>50</sub> values of 2.7 .mu.M, 1.7 .mu.M, and 1.1 .mu.M, resp.

L7 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

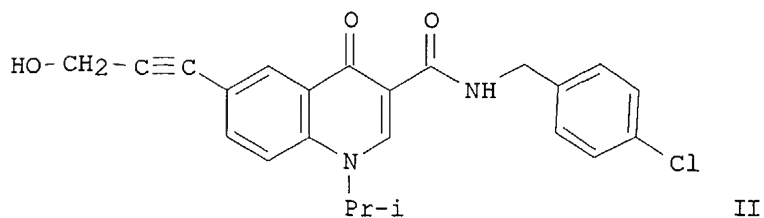
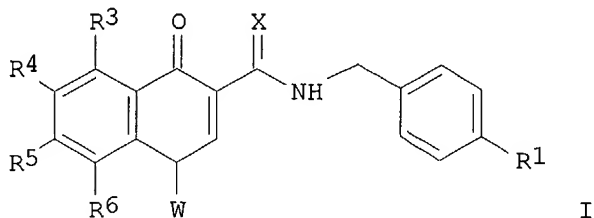
ACCESSION NUMBER: 2000:475644 CAPLUS

DOCUMENT NUMBER: 133:89443

TITLE: Quinolinecarboxamides as antiviral agents, especially against viruses of the herpes family

INVENTOR(S): Turner, Steven Ronald; Strohbach, Joseph Walter;  
Thaisrivongs, Suvit; Vaillancourt, Valerie A.;  
Schnute, Mark E.; Tucker, John Alan  
PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA  
SOURCE: PCT Int. Appl., 219 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000040561	A1	20000713	WO 1999-US27960	19991222
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US 6248739	B1	20010619	US 1999-466712	19991217
EP 1140850	A1	20011010	EP 1999-967145	19991222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002534416	T2	20021015	JP 2000-592270	19991222
AU 760207	B2	20030508	AU 2000-23486	19991222
NZ 512824	A	20030926	NZ 1999-512824	19991222
ZA 2001004711	A	20020610	ZA 2001-4711	20010608
NO 2001003383	A	20010907	NO 2001-3383	20010706
PRIORITY APPLN. INFO.:			US 1999-115301P	P 19990108
			US 1999-140610P	P 19990623
			WO 1999-US27960	W 19991222
OTHER SOURCE(S):			MARPAT 133:89443	
GRAPHIC IMAGE:				



ABSTRACT:

The invention provides quinolinecarboxamides I (X = O, S; W = R<sup>2</sup>, etc., where R<sup>1</sup>-R<sup>6</sup> = a wide variety of defined groups, with 125 examples), e.g., hydroxypropynyl deriv. II, and their pharmaceutically acceptable salts which are useful as antiviral agents, in particular, as agents against viruses of the herpes family. Activities of the compds. against HCMV, HSV, and VZV polymerase are presented. Pharmaceutical compns. comprising compds. I are claimed (no examples).

REFERENCE COUNT:

8

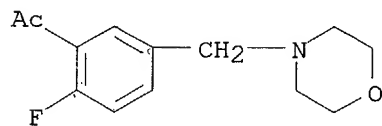
THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L2 ANSWER 25 OF 35 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 281652-26-4 REGISTRY  
CN Ethanone, 1-[2-fluoro-5-(4-morpholinylmethyl)phenyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1-[2-Fluoro-5-(4-morpholinylmethyl)phenyl]ethanone  
FS 3D CONCORD  
MF C13 H16 F N O2  
SR CA  
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)



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L5 4 L4

=> DIS L5 1- IBIB IABS

YOU HAVE REQUESTED DATA FROM 4 ANSWERS - CONTINUE? Y/(N):Y

L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:935580 CAPLUS

DOCUMENT NUMBER: 136:53690

TITLE: Preparation and antiviral activity of  
1-aryl-4-oxo-1,4-dihydro-3-quinolinecarboxamides

INVENTOR(S): Schnute, Mark E.

PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

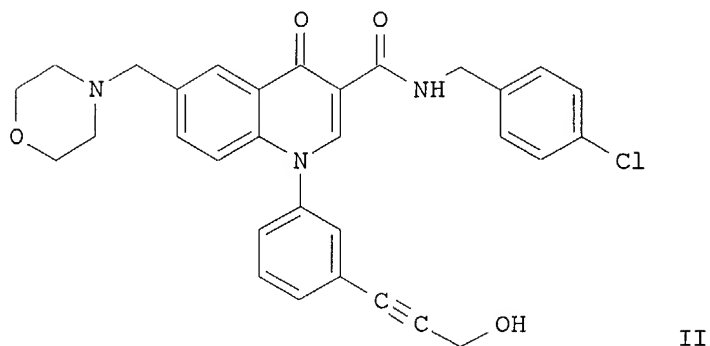
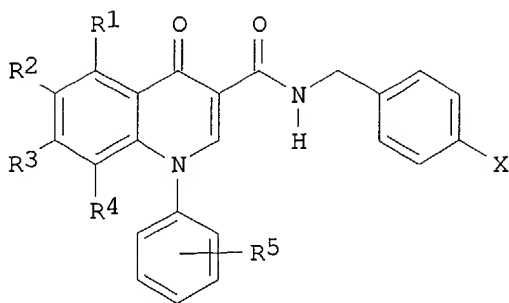
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001098275	A2	20011227	WO 2001-US16481	20010605
WO 2001098275	A3	20020704		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
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US 2002103220	A1	20020801	US 2001-875432	20010605
US 6653307	B2	20031125		
EP 1292575	A2	20030319	EP 2001-945974	20010605
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2001011729	A	20030729	BR 2001-11729	20010605
PRIORITY APPLN. INFO.:			US 2000-212202P P	20000616
			US 2001-272136P P	20010228
			WO 2001-US16481 W	20010605
OTHER SOURCE(S):	MARPAT 136:53690			
GRAPHIC IMAGE:				



**ABSTRACT:**

The title compds. of formula I [R1 = H, halo, or C1-C4 alkyl optionally substituted by one to three halo; R2 = H, halo, aryl, etc.; R3 = H, halo, OH, alkoxy, aryl oxy, etc.; R4 = H, halo, OH, alkoxy, aryloxy, etc.; R5 = H, halo, OH, alkoxy, aryloxy, etc.; X = Cl, F, Br, CN, or NO2] or their pharmaceutically acceptable salts, useful as antiviral agents, in particular, as agent against viruses of the herpes family were prep'd.. Thus, reacting N-(4-chlorobenzyl)-1-(3-iodophenyl)-6-(4-morpholinylmethyl)-4-oxo-1,4-dihydro-3-quinolinecarboxamide with propargyl alc. in the presence of Pd(PPh3)2Cl2 and CuI afforded II in 19% which showed IC50 of 0.57 .mu.M against human cytomegalovirus (HCMV) polymerase.

L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:798202 CAPLUS

DOCUMENT NUMBER: 135:331435

TITLE: Preparation of 4-hydroxycinnoline-3-carboxamides as antiviral agents

INVENTOR(S): Vaillancourt, Valerie A.; Larsen, Scott D.; Nair, Sajiv K.

PATENT ASSIGNEE(S): Pharmacia + Upjohn Company, USA

SOURCE: PCT Int. Appl., 61 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

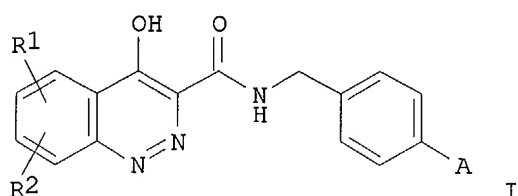
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081318	A1	20011101	WO 2001-US5807	20010315
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,				

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 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 2002042397 A1 20020411 US 2001-808902 20010315  
 US 6458788 B2 20021001  
 EP 1265872 A1 20021218 EP 2001-916182 20010315  
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 PRIORITY APPLN. INFO.: US 2000-190976P P 20000321  
 WO 2001-US5807 W 20010315  
 OTHER SOURCE(S): MARPAT 135:331435  
 GRAPHIC IMAGE:



# ABSTRACT:

The title compds. [I; A = Cl, Be, CN, NO<sub>2</sub>, F; R<sub>1</sub> = aryl, CN, heteroaryl, etc.; R<sub>2</sub> = H, halo, aryl, etc.], useful for treatment or prevention of herpes viruses, were prepd. E.g., a multi-step synthesis of I [A = Cl; R<sub>1</sub> = 6-CH<sub>2</sub>OH; R<sub>2</sub> = H] which showed 51% inhibition of the HCMV polymerase at 20 .mu.M, was given.

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:713324 CAPLUS

DOCUMENT NUMBER: 135:257250

TITLE: Preparation of 4-oxo-1,4-dihydro-3-cinnolinecarboxamides as antiviral agents

INVENTOR(S): Vaillancourt, Valerie A.; Larsen, Scott D.; Nair, Sajiv K.

PATENT ASSIGNEE(S): Pharmacia + Upjohn Company, USA

SOURCE: PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

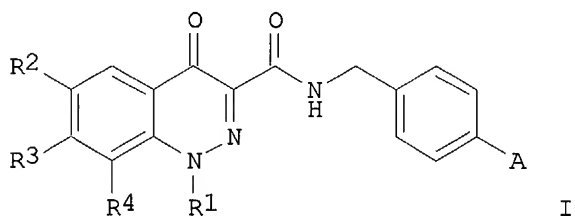
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070706	A2	20010927	WO 2001-US5811	20010315
WO 2001070706	A3	20020510		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,

VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 US 2002045619 A1 20020418 US 2001-808836 20010315  
 US 6624160 B2 20030923  
 EP 1265873 A2 20021218 EP 2001-920138 20010315  
 EP 1265873 B1 20031015  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 BR 2001009487 A 20030610 BR 2001-9487 20010315  
 JP 2003528087 T2 20030924 JP 2001-568916 20010315  
 NO 2002004502 A 20021120 NO 2002-4502 20020920  
 PRIORITY APPLN. INFO.: US 2000-191291P P 20000321  
 WO 2001-US5811 W 20010315  
 OTHER SOURCE(S): MARPAT 135:257250  
 GRAPHIC IMAGE:



# ABSTRACT:

The title compds. I [wherein A = Cl, Br, CN, NO<sub>2</sub>, or F; R<sub>1</sub> = R<sub>5</sub> or SO<sub>2</sub>R<sub>9</sub>; R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> = independently H, halo, aryl, SOmR<sub>6</sub>, COR<sub>6</sub>, CO<sub>2</sub>R<sub>9</sub>, CN, heterocyclyl(oxy), OR<sub>10</sub>, NR<sub>7</sub>R<sub>8</sub>, SR<sub>10</sub>, heterocyclylthio, NHCOR<sub>12</sub>, NHSO<sub>2</sub>R<sub>12</sub>, or (un)substituted alkyl; or R<sub>3</sub> together with R<sub>2</sub> or R<sub>4</sub> form an (un)substituted (hetero)cyclic ring; R<sub>5</sub> = (CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>R<sub>10</sub> or (un)substituted (cyclo)alkyl; R<sub>6</sub> = alkyl, NR<sub>7</sub>R<sub>8</sub>, aryl, or heterocyclyl; R<sub>7</sub> and R<sub>8</sub> = H, aryl, or (un)substituted (cyclo)alkyl; or R<sub>7</sub> and R<sub>8</sub> together with the N to which they are attached form a heterocyclic ring; R<sub>9</sub> = aryl, heterocyclyl, cycloalkyl, Me, or (un)substituted alkyl; R<sub>10</sub> = H, Me, or (hydroxy)alkyl; R<sub>12</sub> = H, heterocyclyl, aryl, cycloalkyl, Me, or (amino)alkyl; m = 0-2; n = 2-4; or a pharmaceutically acceptable salt thereof] were prep'd. as antiviral agents, which are particularly effective against varicella zoster virus (VZV), the Epstein-Barr virus, the herpes simplex virus (HSV), the human herpes virus type 8 (HHV-8), and cytomegalovirus (CMV). For example, tosyl azide was added to Et 3-(2-fluoro-5-iodophenyl)-3-oxopropanoate and the diazo comp'd. cyclized with PBu<sub>3</sub> to give Et 4-hydroxy-6-iodo-3-cinnolinecarboxylate. Amidation with 4-chlorobenzylamine (85%), N-methylation (39%), and alkylation with propargyl alc. in the presence of Pd(PPh<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> yielded the 4-oxo-1,4-dihydro-3-cinnolinecarboxamide I (A = Cl, R<sub>1</sub> = Me, R<sub>2</sub> = C.tplbond.CCH<sub>2</sub>OH, R<sub>3</sub> and R<sub>4</sub> = H) (II). The latter inhibited human CMV, HSV, and VZV polymerases with IC<sub>50</sub> values of 2.7 .mu.M, 1.7 .mu.M, and 1.1 .mu.M, resp.

L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2000:475644 CAPLUS

DOCUMENT NUMBER: 133:89443

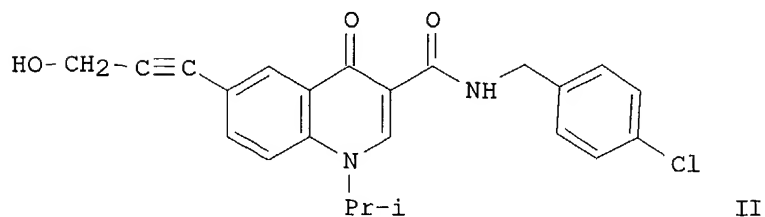
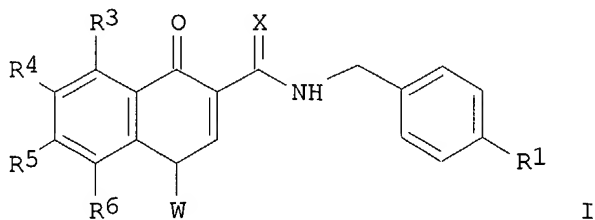
TITLE: Quinolinecarboxamides as antiviral agents, especially against viruses of the herpes family

INVENTOR(S): Turner, Steven Ronald; Strohbach, Joseph Walter;  
 Thaisrivongs, Suvit; Vaillancourt, Valerie A.;  
 Schnute, Mark E.; Tucker, John Alan

PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA  
 SOURCE: PCT Int. Appl., 219 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000040561	A1	20000713	WO 1999-US27960	19991222
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US 6248739	B1	20010619	US 1999-466712	19991217
EP 1140850	A1	20011010	EP 1999-967145	19991222
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JP 2002534416	T2	20021015	JP 2000-592270	19991222
AU 760207	B2	20030508	AU 2000-23486	19991222
NZ 512824	A	20030926	NZ 1999-512824	19991222
ZA 2001004711	A	20020610	ZA 2001-4711	20010608
NO 2001003383	A	20010907	NO 2001-3383	20010706
PRIORITY APPLN. INFO.:			US 1999-115301P	P 19990108
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			WO 1999-US27960	W 19991222

OTHER SOURCE(S): MARPAT 133:89443  
 GRAPHIC IMAGE:



**ABSTRACT:**

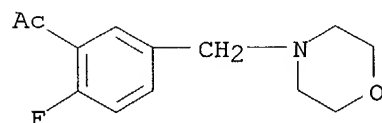
The invention provides quinolinecarboxamides I (X = O, S; W = R2, etc., where R1-R6 = a wide variety of defined groups, with 125 examples), e.g.,

hydroxypropynyl deriv. II, and their pharmaceutically acceptable salts which are useful as antiviral agents, in particular, as agents against viruses of the herpes family. Activities of the compds. against HCMV, HSV, and VZV polymerase are presented. Pharmaceutical compns. comprising compds. I are claimed (no examples).

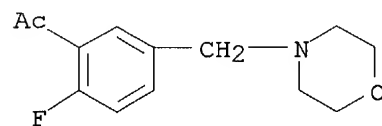
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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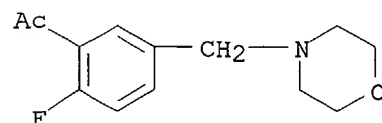
L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
IT **281652-26-4P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and antiviral activity of quinolinecarboxamides)  
RN 281652-26-4 CAPLUS  
CN Ethanone, 1-[2-fluoro-5-(4-morpholinylmethyl)phenyl]- (9CI) (CA INDEX NAME)



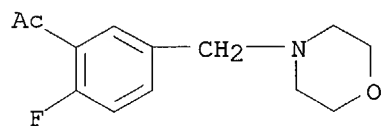
L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
IT **281652-26-4P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. of 4-hydroxycinnoline-3-carboxamides as antiviral agents)  
RN 281652-26-4 CAPLUS  
CN Ethanone, 1-[2-fluoro-5-(4-morpholinylmethyl)phenyl]- (9CI) (CA INDEX NAME)



L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
IT **281652-26-4P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; prepn. of oxodihydrocinnolinecarboxamide antiviral agents by cycloaddn. of phenyloxopropanoates and azides)  
RN 281652-26-4 CAPLUS  
CN Ethanone, 1-[2-fluoro-5-(4-morpholinylmethyl)phenyl]- (9CI) (CA INDEX NAME)

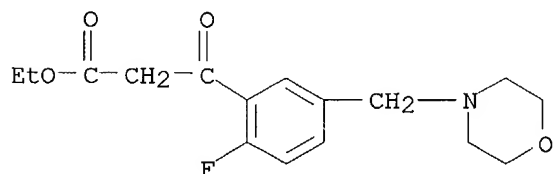


L5 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
IT **281652-26-4P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(for prepn. of quinolinecarboxamide derivs.)  
RN 281652-26-4 CAPLUS  
CN Ethanone, 1-[2-fluoro-5-(4-morpholinylmethyl)phenyl]- (9CI) (CA INDEX  
NAME)



3

L7 ANSWER 19 OF 19 REGISTRY COPYRIGHT 2003 ACS on STN  
RN 281652-27-5 REGISTRY  
CN Benzenepropanoic acid, 2-fluoro-5-(4-morpholinylmethyl)-.beta.-oxo-, ethyl ester (9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN Ethyl 3-[2-fluoro-5-(4-morpholinylmethyl)phenyl]-3-oxopropanoate  
FS 3D CONCORD  
MF C16 H20 F N O4  
SR CA  
LC STN Files: CA, CAPLUS, USPAT2, USPATFULL



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)



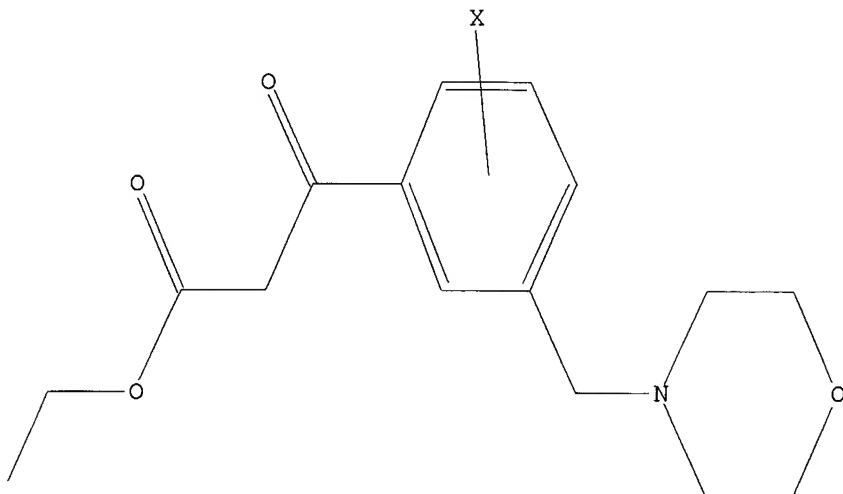
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L6 HAS NO ANSWERS

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FULL SCREEN SEARCH COMPLETED - 74292 TO ITERATE

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19 ANSWERS

SEARCH TIME: 00.00.01

L7 19 SEA SSS FUL L6

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COST IN U.S. DOLLARS

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ENTRY	SESSION
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FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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ENTRY	SESSION
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CA SUBSCRIBER PRICE

FILE 'CAPLUS' ENTERED AT 23:09:10 ON 10 DEC 2003

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FILE COVERS 1907 - 10 Dec 2003 VOL 139 ISS 24  
FILE LAST UPDATED: 9 Dec 2003 (20031209/ED)

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

=> s 17

L8 4 L7

=> d 18 1-4 ibib abs hitstr

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:935580 CAPLUS

DOCUMENT NUMBER: 136:53690

TITLE: Preparation and antiviral activity of  
1-aryl-4-oxo-1,4-dihydro-3-quinolinecarboxamides

INVENTOR(S): Schnute, Mark E.

PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

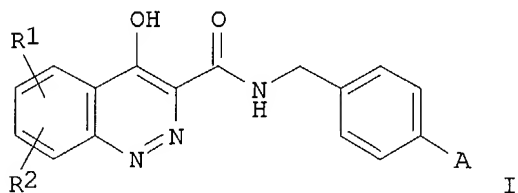
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001098275	A2	20011227	WO 2001-US16481	20010605
WO 2001098275	A3	20020704		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 2002103220	A1	20020801	US 2001-875432	20010605
US 6653307	B2	20031125		
EP 1292575	A2	20030319	EP 2001-945974	20010605
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BR 2001011729	A	20030729	BR 2001-11729	20010605
PRIORITY APPLN. INFO.:			US 2000-212202P	P 20000616
			US 2001-272136P	P 20010228
			WO 2001-US16481	W 20010605
OTHER SOURCE(S):	MARPAT 136:53690			
GI				

L8 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2001:798202 CAPLUS  
 DOCUMENT NUMBER: 135:331435  
 TITLE: Preparation of 4-hydroxycinnoline-3-carboxamides as  
 antiviral agents  
 INVENTOR(S): Vaillancourt, Valerie A.; Larsen, Scott D.; Nair,  
 Sajiv K.  
 PATENT ASSIGNEE(S): Pharmacia + Upjohn Company, USA  
 SOURCE: PCT Int. Appl., 61 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081318	A1	20011101	WO 2001-US5807	20010315
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US 2002042397	A1	20020411	US 2001-808902	20010315
US 6458788	B2	20021001		
EP 1265872	A1	20021218	EP 2001-916182	20010315
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JP 2003531195	T2	20031021	JP 2001-578412	20010315
PRIORITY APPLN. INFO.:			US 2000-190976P	P 20000321
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OTHER SOURCE(S):			MARPAT 135:331435	
GI				



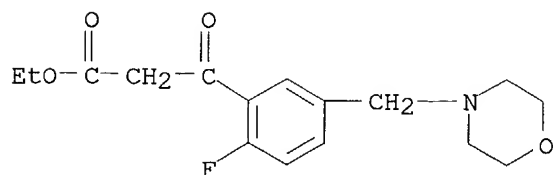
AB The title compds. [I; A = Cl, Be, CN, NO<sub>2</sub>, F; R<sub>1</sub> = aryl, CN, heteroaryl, etc.; R<sub>2</sub> = H, halo, aryl, etc.], useful for treatment or prevention of herpes viruses, were prepd. E.g., a multi-step synthesis of I [A = Cl; R<sub>1</sub> = 6-CH<sub>2</sub>OH; R<sub>2</sub> = H] which showed 51% inhibition of the HCMV polymerase at 20 .mu.M, was given.

IT **281652-27-5P 362048-54-2P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of 4-hydroxycinnoline-3-carboxamides as antiviral agents)

RN 281652-27-5 CAPLUS

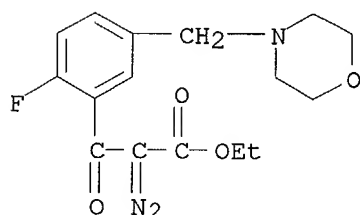
CN Benzenepropanoic acid, 2-fluoro-5-(4-morpholinylmethyl)-.beta.-oxo-, ethyl

ester (9CI) (CA INDEX NAME)



RN 362048-54-2 CAPLUS

CN Benzenepropanoic acid, .alpha.-diazo-2-fluoro-5-(4-morpholinylmethyl)-  
.beta.-oxo-, ethyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:713324 CAPLUS

DOCUMENT NUMBER: 135:257250

TITLE: Preparation of 4-oxo-1,4-dihydro-3-  
cinnolinecarboxamides as antiviral agents

INVENTOR(S): Vaillancourt, Valerie A.; Larsen, Scott D.; Nair,  
Sajiv K.

PATENT ASSIGNEE(S): Pharmacia + Upjohn Company, USA

SOURCE: PCT Int. Appl., 78 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

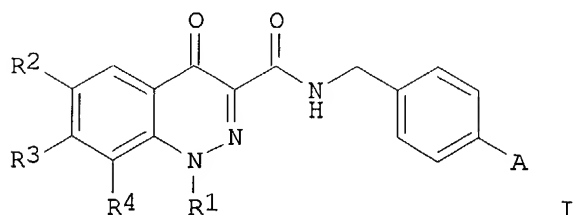
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001070706	A2	20010927	WO 2001-US5811	20010315
WO 2001070706	A3	20020510		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
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US 6624160	B2	20030923		
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IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 BR 2001009487 A 20030610 BR 2001-9487 20010315  
 JP 2003528087 T2 20030924 JP 2001-568916 20010315  
 NO 2002004502 A 20021120 NO 2002-4502 20020920  
 PRIORITY APPLN. INFO.: US 2000-191291P P 20000321  
 WO 2001-US5811 W 20010315  
 OTHER SOURCE(S): MARPAT 135:257250  
 GI



AB The title compds. I [wherein A = Cl, Br, CN, NO<sub>2</sub>, or F; R<sub>1</sub> = R<sub>5</sub> or SO<sub>2</sub>R<sub>9</sub>; R<sub>2</sub>, R<sub>3</sub>, and R<sub>4</sub> = independently H, halo, aryl, SOMR<sub>6</sub>, COR<sub>6</sub>, CO<sub>2</sub>R<sub>9</sub>, CN, heterocyclyl(oxy), OR<sub>10</sub>, NR<sub>7</sub>R<sub>8</sub>, SR<sub>10</sub>, heterocyclylthio, NHCOR<sub>12</sub>, NHSO<sub>2</sub>R<sub>12</sub>, or (un)substituted alkyl; or R<sub>3</sub> together with R<sub>2</sub> or R<sub>4</sub> form an (un)substituted (hetero)cyclic ring; R<sub>5</sub> = (CH<sub>2</sub>CH<sub>2</sub>O)<sub>n</sub>R<sub>10</sub> or (un)substituted (cyclo)alkyl; R<sub>6</sub> = alkyl, NR<sub>7</sub>R<sub>8</sub>, aryl, or heterocyclyl; R<sub>7</sub> and R<sub>8</sub> = H, aryl, or (un)substituted (cyclo)alkyl; or R<sub>7</sub> and R<sub>8</sub> together with the N to which they are attached form a heterocyclic ring; R<sub>9</sub> = aryl, heterocyclyl, cycloalkyl, Me, or (un)substituted alkyl; R<sub>10</sub> = H, Me, or (hydroxy)alkyl; R<sub>12</sub> = H, heterocyclyl, aryl, cycloalkyl, Me, or (amino)alkyl; m = 0-2; n = 2-4; or a pharmaceutically acceptable salt thereof] were prep'd. as antiviral agents, which are particularly effective against varicella zoster virus (VZV), the Epstein-Barr virus, the herpes simplex virus (HSV), the human herpes virus type 8 (HHV-8), and cytomegalovirus (CMV). For example, tosyl azide was added to Et 3-(2-fluoro-5-iodophenyl)-3-oxopropanoate and the diazo compd. cyclized with PBu<sub>3</sub> to give Et 4-hydroxy-6-iodo-3-cinnolinecarboxylate. Amidation with 4-chlorobenzylamine (85%), N-methylation (39%), and alkylation with propargyl alc. in the presence of Pd(PPh<sub>3</sub>)<sub>2</sub>Cl<sub>2</sub> yielded the 4-oxo-1,4-dihydro-3-cinnolinecarboxamide I (A = Cl, R<sub>1</sub> = Me, R<sub>2</sub> = C.tplbond.CCH<sub>2</sub>OH, R<sub>3</sub> and R<sub>4</sub> = H) (II). The latter inhibited human CMV, HSV, and VZV polymerases with IC<sub>50</sub> values of 2.7 .mu.M, 1.7 .mu.M, and 1.1 .mu.M, resp.

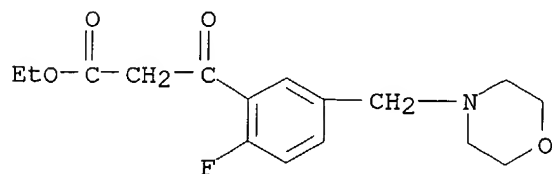
IT **281652-27-5P 362048-54-2P**

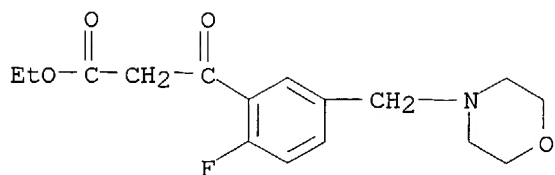
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of oxodihydrocinnolinecarboxamide antiviral agents by cycloaddn. of phenyloxopropanoates and azides)

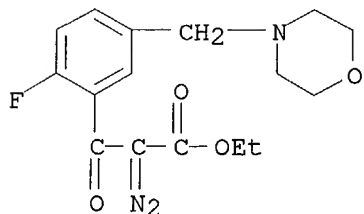
RN 281652-27-5 CAPLUS

CN Benzenepropanoic acid, 2-fluoro-5-(4-morpholinylmethyl)-.beta.-oxo-, ethyl ester (9CI) (CA INDEX NAME)





RN 362048-54-2 CAPLUS  
 CN Benzenepropanoic acid, .alpha.-diazo-2-fluoro-5-(4-morpholinylmethyl)-  
 .beta.-oxo-, ethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2000:475644 CAPLUS  
 DOCUMENT NUMBER: 133:89443  
 TITLE: Quinolonecarboxamides as antiviral agents, especially  
 against viruses of the herpes family  
 INVENTOR(S): Turner, Steven Ronald; Strohbach, Joseph Walter;  
 Thaisrivongs, Suvit; Vaillancourt, Valerie A.;  
 Schnute, Mark E.; Tucker, John Alan  
 PATENT ASSIGNEE(S): Pharmacia & Upjohn Company, USA  
 SOURCE: PCT Int. Appl., 219 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000040561	A1	20000713	WO 1999-US27960	19991222
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6248739	B1	20010619	US 1999-466712	19991217
EP 1140850	A1	20011010	EP 1999-967145	19991222
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002534416	T2	20021015	JP 2000-592270	19991222
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NZ 512824	A	20030926	NZ 1999-512824	19991222
ZA 2001004711	A	20020610	ZA 2001-4711	20010608
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